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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,876	10/10/2001	Jong Hyun Woo	P 0269	5601

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EXAMINER

SHANKAR, VIJAY

ART UNIT	PAPER NUMBER
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2673

5

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/972,876

Applicant(s)

WOO, JONG HYUN

Examiner

VIJAY SHANKAR

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment A filed on 2-5-2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-14 and 16-19 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-14, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchell et al (5,272,327) in view of Cortopassi (5,996,082).

Regarding Claims 1, 11, Mitchell et al teaches an apparatus for reducing power consumption of a LCD (Liquid Crystal Display; 16 in fig.1) backlight lamp (10 in fig.4) , comprising: a power unit (22 in fig.4) for supplying power (fig.4; col.3, lines 22-40) ; a control unit (24 in fig.4; col.3, lines 22-40) being supplied power from the power unit and outputting a brightness control information signal having a plurality of discrete incremental level values corresponding to discrete brightness levels (fig.4; col.3, line 22-60; col.5, line 52- col.6, line 38; col.7, lines 13-53) ; an inverter unit receiving the brightness control information signal from the control unit and outputting driving power of a corresponding level in accordance therewith (fig.4; col.5, line 52-

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col.6, line 65), for driving a backlight lamp by levels (col.7, lines 13-65); and a backlight lamp receiving the power from the inverter unit (fig.4; col.7, line 13-65) . However, Mitchell et al does not teach when the LCD is turned on or a wake up operation is activated after a suspend mode, the control unit is configured to control the brightness adjustment information signal so as to be related to a brightness increase curve of the backlight lamp such that power supplied to the backlight lamp is gradually increased over time.

Cortopassi teaches a system for wake-up signal and when the LCD is turned on or a wake up operation is activated after a suspend mode, the control unit is configured to control the brightness adjustment information signal so as to be related to a brightness increase curve of the backlight lamp such that power supplied to the backlight lamp is gradually increased over time (background, summary; Column 6, line 56- col.7, line 44; Fig.20; col. 20, line 64- col.21, line 20; col.25, line 1- col.26, line 67).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Cortopassi into Mitchell for better control of power management.

Regarding Claims 2-3, Mitchell et al teaches the apparatus further comprising; a memory unit storing a control information for adjusting a brightness of a LCD screen and a key input unit for adjusting a brightness of a LCD screen (col.2, lines 37- 48).

Regarding Claim 4, Mitchell et al teaches the apparatus wherein the control unit includes: a keyboard controller discriminating a key press state by a user and outputting a brightness adjustment key input signal; a microprocessor receiving the brightness adjustment key input signal and selecting a kind of brightness adjustment information and brightness ROM table, and outputting the brightness control information; a brightness adjustment information outputting unit outputting a brightness adjustment information signal to the inverter unit according to the brightness control information inputted from the microprocessor levels (fig.4; col.3, line 22-60; col.5, line 52- col.6, line 38; col.7, lines 13-53).

Regarding Claim 6, Mitchell et al teaches the apparatus , wherein the brightness adjustment information outputting unit outputs a digital brightness adjustment information signal converted into information required for the brightness adjustment to the inverter unit levels (fig.4; col.3, line 22-60; col.5, line 52- col.6, line 38; col.7, lines 13-53).

Regarding Claim 7, Mitchell et al teaches the apparatus wherein the digital brightness adjustment information signal uses a voltage level of a PWM duty cycle signal (fig.4; col.5, line 29-51; col.7, line 13- col.8, line 50).

Regarding Claim 8, Mitchell et al teaches the apparatus wherein the memory unit includes a memory unit storing brightness information of a last brightness level inputted from the control unit and an incremental brightness variation value setting unit for outputting a preset brightness value by incremental level to the control unit (fig.4; col. 6, line 3-39; col.7, lines 13-53).

Regarding Claim 9, Mitchell et al teaches the apparatus wherein the variation value setting unit sets a brightness variation quantity by incremental level or a variation time by incremental level according to an input by a user levels (fig.4; col.3, line 22-60; col.5, line 52- col.6, line 38; col.7, lines 13-53).

Regarding Claim 10, Mitchell et al teaches the apparatus wherein the power unit uses a power adapter or a battery as a power source and is constructed with a power discrimination unit for discriminating between the power sources (fig.4; col. 4, line 12- col.5, line 28).

Regarding Claims 12-14, 16-18; Cortopassi teaches wherein the luminescent characteristics vary according to one or more of a thickness, length, kind of enclosed gas, and environmental temperature of the backlight lamp; the control infoemtaion includes a brightness control information signal; and the memory unit stores the control information when the backlight lamp is turned off or dimmed time (Column 6, line 56- col.7, line 44; Fig.20; col. 20, line 64- col.21, line 20; col.25, line 1- col.26, line 67).

Regarding Claim 19, Mitchell et al teaches a LCD (Liquid Crystal Display; 16 in fig.1).

4. Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Applicant's arguments with respect to claims 1-4, 6-19 have been considered but are moot in view of the new ground(s) of rejection.


6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIJAY SHANKAR whose telephone number is 703-305-4763. The examiner can normally be reached on M-F 7:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BIPIN SHALWALA can be reached on 703-305-4938. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

A handwritten signature in black ink, appearing to read 'Vijay Shankar', with a stylized, cursive script.

VIJAY SHANKAR
Primary Examiner
Art Unit 2673

VS